



**CRISIS RELATED ORBIT FRACTURES DISTRIBUTION AND IN-HOSPITAL MANAGEMENT AT ALMOUJTAMED HOSPITAL**

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**ABSTRACT**

**Objective:** This study aimed to review Orbit fractures related to Syrian crisis damages.

**Materials and methods:** This is a retrospective study at AlMoujtamed Hospital (Damascus Hospital) between 1/1/2017 and 31/3/2018) including all cases of orbitfractures related to war damages during the studied period.

**Results:** We found 30orbitfractures related to gunshots, missiles and blasts. The most common cause of fractures was missiles.

**Conclusion:** We found 30 cases of orbit fractures. Missiles were the most common cause of orbit fractures.

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**INTRODUCTION**

Wish of us to present the information impartiality and realistically, we worked hard to find out what happened through the Syrian war, which began at 2011, and left behind many injures, especially between 2012 and 2013. Syria was a victim of war. The Crisis affected all fields including health care services. AlMoujtamed Hospital (Damascus Hospital) is one of the biggest health care systems in Damascus. It has a large well-qualified staff and all the equipment required for different cases. After the war began, the healthcare providers had big challenges due to the increase in injures and an increase in the need for medications. Considering the increase in war related injuries, we made this study hoping to bring the light on war-related traumatic face injuries. This review focuses on traumatic face injuries (Orbit fractures) due to Syrian Crisis and their causative agents (bombs, missiles and gunshots). As far as we know, this study is the first of its type in Syria.

**MATERIALS AND METHODS**

This study was a retrospective study of the patients who reviewed AlMoujtamed Hospital (Damascus Hospital) with orbit fractures.

This study included all cases from 1/1/2017 to 31/3/2018. Only the authors to ensure the privacy collected all the data and all the names and personal information were blinded. Statistical analysis was done using SPSS 23.0.

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**RESULTS**

**Table 1** Types and distribution of orbit fractures

Fracture Type	Number of cases	% of total
orbit plate fracture	1	3.3
orbit ground fracture	9	30.0
orbit lateral fracture	5	16.7
Plate + medial+ lateralfracture	2	6.7
Plate + ground+ lateralfracture	2	6.7
Plate + medialfracture	1	3.3
Plate + groundfracture	1	3.3
ground + lateralfracture	8	26.7
ground + medial+ lateralfracture	1	3.3

**Table 2** Correlation between orbit fractures and their causes

Orbit Fracture	Cause			Total	Chi Square test	p-value
	Bombs	Missiles	Gunshots			
N	5	15	10	30	70.248	0.000*
%	16.7%	50%	33.3%	100.0%		

**Table 3** The relation between orbitfractures with blood transfusion need

Orbit Fracture	N	Did not need blood transfusion	Needed blood transfusion	Total	Chi Square test	p-value

**Table 4** Treatment of orbit fractures

Orbit Fracture Management		N	%
		Conservative	7
Surgical	23	76.7	
Total	30	100	

**Table 5** Correlation between orbit fractures and the need for hospital admission (hospitalization)

		Did not need Hospitalization	Needed Hospitalization	Total	Chi Square test	p-value
Orbit Fracture	N	5	25	30	250.75	0.000*
	%	16.7%	83.3%	100.0%		

## DISCUSSION

We found 30 cases of orbit fractures in our study divided into 1 case of each of the following: orbit plate fracture, Plate + medial fractures, Plate + ground fractures and ground + medial+ lateral fractures. We had 2 cases of Plate + medial+ lateral fractures and 2 cases of Plate + ground+ lateral fractures. We had 5cases of orbit lateral fractures, 8 cases of ground + lateral fractures. We had 9 cases of orbit ground fractures which was the most common orbit fracture type (30%). (Table 1).

We found a significant correlation ( $p= 0.000$ ) between orbit fractures and their causes (blasts, missiles or gunshots). Most of orbit fractures were due to missiles (15 cases, 50% of all orbit fractures), 5 cases were caused because of bombs (16.7% of all orbit fractures) and 10 cases were due to gunshots (33.3% of all orbit fractures). (Table 2)

We found a significant correlation between orbit fracture and the need for blood transfusion ( $p=0.000$ ). In our study, most of the patients did not need blood transfusion. (Table 3)

Treatment of the fractures was either conservative in 7cases (23.3%) or surgical in 23 cases (76.7%). (Table 4)

We found a significant correlation ( $p=0.000$ ) between orbitfractures and the need for hospitalization. 25 cases needed hospital admission (83.3% of all orbit fractures), while 5 cases did not require it. (Table5)

## CONCLUSION

Most common orbitfractures were orbit ground fracture followed by ground + lateral orbit fracture (30% and 26.7%, respectively). The majority of orbit fractures were treated surgically. Missiles were the most common cause of orbit fractures. Only 30% of all cases required blood transfusion. Most of orbit fractures needed hospitalization (83.3%)

### Compliance with Ethical Standards

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